

Energy News Overview

July was brimming with interesting energy news. Most notable for us in the Northwest was the unexpected shake up at BPA in which the recently appointed administrator and chief operating officer were replaced. The Inspector General's Office has investigated numerous hiring and whistleblower complaints and found that veterans and others were disadvantaged by BPA management practices. Elliot Mainzer was appointed as the interim administrator by the Dept. of Energy. Related article on page 5.

Strange as it may sound, Washington may become an oil exporting state. Port of Vancouver commissioners approved a 10 year lease of property on the Columbia that could be used as an oil export facility. The oil would arrive by train from the newly developed, and prolific, North Dakota oil fields. Up to 380,000 barrels per day could arrive on several mile long "oil trains". The oil would be stored in tank farms and later transferred to barges or small coastal tankers and transported to California or other west coast refineries (export of US produced crude oil to foreign countries is restricted). The development is likely to be controversial after the recent rail oil train accident and fire in Quebec that killed 75 or more people. Several other oil export facilities have been proposed in the Northwest that would also handle rail shipments of North Dakota crude oil. Related article on page 5.

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JP Morgan Chase appears to be conceding in its fight with the federal government and several states and will make payments of at least \$410 million. The surprise agreement follows a long investigation by FERC that focused on manipulations of energy markets using complex financial instruments. The accusations against JPMorgan stem from its rights to sell electricity from specific power plants. The rights come from assets that the bank acquired in the 2008 takeover of Bear Stearns. The output of the older inefficient plants was bundled into products by traders that FERC contends drove up energy prices in California and Michigan. Civil charges may be brought against several JP Morgan employees. In addition JP Morgan is facing potential federal fines over mortgage securitization practices. Related article on page 6.

On the international stage, the European Union and China agreed to a modest price floor for Chinese solar PV panels in exchange for the EU dropping plans for high tariffs on the imported PV panels. The EU and the US have threatened or imposed high tariffs on low priced Chinese PV panels which over the course of about 5 years put several EU and US manufacturers out of business. The Chinese government has subsidized the recent and rapid expansion of its PV manufacturing base, and many Chinese producers are selling PV panels at less than cost. China has retaliated against the US PV tariffs by imposing a tax on US polysilicon imports, but not EU imports, which are used to manufacture the low cost PV panels. The EU is being criticized by the US for giving in too easily to pressure from the Chinese. The settlement appears to be an effective attempt to divide the EU and US from collective action against predatory industrial and trade practices. See related articles on pages 5 and 6.

What's Happening in the Energy Office

Evergreen State Solar Partnership—Over 600 city, county, and utility officials recently received information from the Evergreen State Solar Partnership outlining proposals developed over the past year to reduce the "red tape" and improve policies to install solar on rooftops in Washington State. The partnership includes four cities, the utilities that serve them, and solar advocates. It won a \$500,000 grant from the U.S. Department of Energy through the Rooftop Solar Challenge program. It is one element of the SunShot effort to reduce the cost of solar by 75% and make it more competitive with other energy producing technologies.

The four cities and utilities are the City of Bellevue with Puget Sound Energy, City of Edmonds with Snohomish PUD, City of Ellensburg with Ellensburg Energy Services Department, and City of Seattle with Seattle City Light. They surveyed solar in their area and invested staff time to work with other cities and utilities to compare their approaches, look at national models, and work together to draft standardized approaches that could work across Washington's diverse geographies and governments. The nonprofit organizations Sustainable Northwest, Solar Washington, and NW Seed joined the partnership to assist in engaging local governments and members of the solar industry.

In partnership with the WA Department of Commerce State Energy Office, Northwest SEED put together a winning proposal to the Department of Energy under the SunShot Rooftop Solar Challenge. Under the award, Northwest SEED, who has substantial solar experience, acted as the project manager of the team working to establish standards and processes that streamline solar installations and accelerate the use of solar power in the state.

Rooftop solar installations in Washington are growing at a rate of over 30% annually, providing an ever-increasing number of jobs, and a small but growing share of diversified clean energy. As residents and businesses increasingly choose to install solar electric systems, jurisdictions and utilities are searching for new systems to meet increased customer demand for permits and interconnection. A study by the Lawrence Berkeley Laboratory showed that even though the equipment costs were about the same, installations in Germany were half the cost they were in the U.S.

The ESSP work is available on the www.nwcommunities.org website. ESSP hosted webinars, developed reports and contacted Washington's 285 cities, 39 counties and 63 utilities to obtain input on the project. They were mindful that while it was not possible to have everyone interested directly involved it was vital to gather input from interested governments, utilities, installers, and manufacturers to ensure the proposals were sound.

According to Tim Stearns, "ESSP successes have come from engaging a diverse team and dedicated team and creating work groups to address each area then seeking outside input. While we are a diverse partnership, we needed to reach out to engage everyone involved in permitting and regulating solar, buildings and utilities to create streamlined permitting, planning, interconnection and financing approaches. We value the openness by all the stakeholders to discuss how to make these processes work better together."

"We have tried to make this a model of how to modernize government efficiently and intelligently to make processes faster, cheaper, better for everyone involved," said Linda Irvine Project Manager at NW Seed.

The Pacific Northwest Solar Partnership is seeking a new grant under Rooftop Solar Challenge II to assist governments and utilities and provide training across the States of Oregon and Washington. It is pending before the U.S. Department of Energy.

Contact Tim Stearns at (206) 256-6121 or tim.stearns@commerce.wa.gov

Electricity, Petroleum & Natural Gas Prices

Energy Price Overview

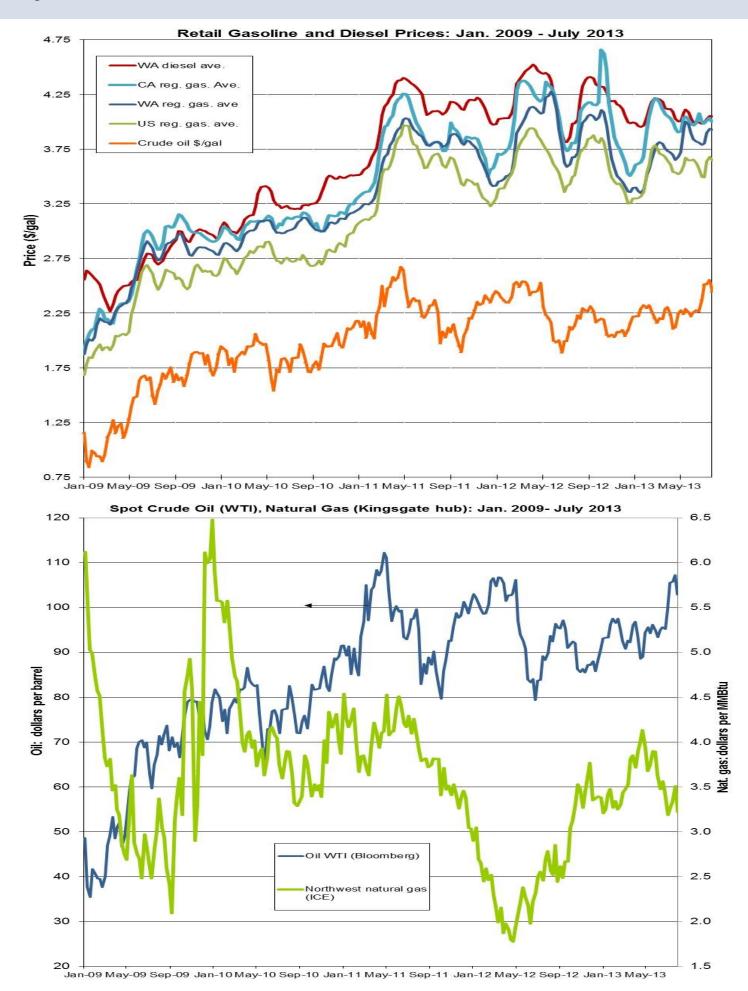
During July there was a moderate increase in the prices for West Texas Intermediate crude oil and refined products such as gasoline and diesel. During the last week of June WTI was about \$95 per barrel, but increased to about \$105 per barrel by the last week of July. The oil price increase was primarily the result of sharp declines in oil inventories as refineries processed more crude to produce gasoline, diesel, etc. Other factors in the decline are that transportation constraints that have bottle up crude oil in the mid continent have begun to ease a bit, crude oil imports are down, and front month future prices are higher, which provides an incentive to sell and not hold oil inventory. Several months ago WTI was priced \$15-20 per barrel below the price for similar international crude oil such as Brent, from the UK. As capacity on pipelines and rail tanker cars out of North Dakota, Texas and Oklahoma has increased mid-continent crude oil has moved down to the Gulf coast, and the price spread between WTI and Brent has decreased to \$3-4 per barrel. U.S. refineries operated at 92.5 percent of rated capacity during July, which is high, but not unusual for the summer.

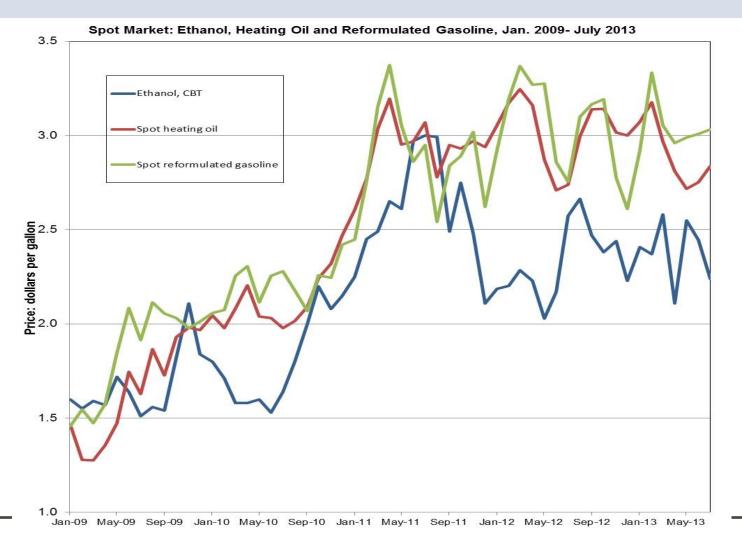
During the last week of July U.S. gasoline and diesel prices averaged \$3.65 and \$3.93 per gallon respectively: 15 and 12 cents per gallon higher than at this time last year. Washington state gasoline and diesel prices averaged \$3.93 and \$4.05 per gallon respectively: 26 and 6 cents per gallon higher than last year.

The price for front month (one month ahead) NYMEX natural gas was \$3.43 per MMBtu, 43 cents lower than the price seen at the end of June. Locally spot natural gas price at Kingsgate was \$3.22 per MMBtu, down 21 cents from the June spot price. Nationally there was natural gas storage injection of 41 Bcf. Gas storage levels are 2786 Bcf about 1.6% below the 5-year average. Gas storage in the West is running 6.8% above the 5-year average.

Regional electricity prices have risen since last month's report: July's monthly average \$45.8 per MWh versus 33.4 for the previous month. This is the highest monthly average seen in three years. Part of the increase is due to high demand for electric power in California, which is without the output of the two reactors at San Onfre: see link to article regarding the permanent closure of these reactors http://www.nytimes.com/2013/07/26/us/californians-consider-a-future-without-a-nuclear-plant-for-a-neighbor.html?pagewanted=all.

Energy Price Summary	Current	Month Ago	Year Ago
Monthly Range at Mid-C (Peak: \$ per MWh)	28-44	24-42	-1-24
Average Mid C price (Peak hours \$ MWh)	45.8	33.4	22.6
Electricity WA Retail: May (cents/kWh)	6.82	7.11	7.00
Natural gas spot price (next day: \$ per million BTU)	3.22	3.43	2.78
Natural gas futures (NYMEX next month: \$ per million BTU)	3.44	3.86	3.07
E85 (national average: \$ per gallon gasoline)	3.82	4.04	4.23
Ethanol (CBT next month contract: \$ per gallon)	2.24	2.45	2.57
Corn (\$ per bushel)	4.89	5.45	7.97
Petroleum, West Texas Intermediate: (\$ per barrel)	102.9	95.2	89.8
Seattle gasoline price (\$ per gallon)	3.95	3.85	3.69
Gasoline futures (NYMEX next month: \$ per gallon)	3.01	2.84	2.80
State diesel price (\$ per gallon)	4.05	4.00	3.99
Heating oil futures (NYMEX next month: \$ per gallon)	3.03	2.90	2.85
U.S. residential propane price report (reported OctMar.)	NA	NA	NA
	US Avg	West Coast	West Coast
Clean Cities: Alternative Fuel Price Report, Apr. 2012	current	last qtr avg	current qtr
Ethanol E85 (\$ per gas gallon equiv.)	4.65	4.71	4.98
Biodiesel B20 (\$ per diesel gallon equiv.)	4.19	4.27	4.44
Biodiesel B99-100 (\$ per diesel gallon equiv.)	4.72	5.08	4.86
Compressed Natural Gas (\$ per gas gallon equiv.)	2.10	2.39	2.46
Propane (\$ per gas gallon equiv.)	3.77	4.04	4.18





Energy Headlines - If you only have time to read a few articles—read these.

 $\label{thm:conver} \mbox{Vancouver Port OKs Oil Train Terminal. KOIN-TV.}$

http://www.koin.com/2013/07/23/vancouver-port-approves-oil-train-terminal/

Climate Change Slowdown is Due to Warming of Deep Oceans, Say Scientists. The Guardian. http://www.guardian.co.uk/science/2013/jul/22/climate-change-slowdown-warming-oceans

Californians consider a future without a nuclear plant for a neighbor. New York Times, July 26. http://www.nytimes.com/2013/07/26/us/californians-consider-a-future-without-a-nuclear-plant-for-a-neighbor.html?pagewanted=all

Renewable Energy in Spain: The Cost Del Sol - Sustainable Energy Meets Unsustainable Costs. The Economist Magazine.

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China's Feud with West on Solar Leads to Tax. New York Times.

 $\frac{\text{http://www.nytimes.com/2013/07/19/business/energy-environment/chinas-feud-with-west-on-solar-leads-to-tax.html?partner=rss\&emc=rss\& r=0$

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Australian Leader Scraps Tax on Carbon Emissions. New York Times.

http://www.nytimes.com/2013/07/17/world/asia/australian-leader-scraps-tax-on-carbon-emissions.html?partner=rss&emc=rss& r=0

Grumbling all around after solar panel deal. New York Times, July 29.

http://www.nytimes.com/2013/07/29/business/global/grumbling-all-around-after-solar-panel-deal.html?pagewanted=all

Global energy use to increase 56% by 2040: EIA. Real Clear Energy, July 29.

http://www.realclearenergy.org/charticles/2013/07/29/eia projects 56 increase by 2040 107162.html

National

Light Bulb Wars Roar Back Into U-S House of Representatives. The Energy Collective.

http://www.theenergycollective.com/tinacasey/249166/light-bulb-wars-roar-back-house-representatives

Carbon Tax Gaining Popularity, But Not With Lawmakers. National Public Radio.

http://www.npr.org/templates/story/story.php?storyId=203361113&ft=1&f=2

Carbon-Cost Change Seen by Republicans as Raising Prices. Bloomberg News.

http://www.bloomberg.com/news/2013-07-18/carbon-cost-change-seen-by-republicans-as-raising-prices.html

Are electric vehicles the most environmental option? Chicago Tribune, July 15.

http://cars.chicagotribune.com/fuel-efficient/news/chi-are-electric-vehicles-environmental-option-20130715

Jim Hansen Presses the Climate Case for Nuclear Energy. New York Times.

http://dotearth.blogs.nytimes.com/2013/07/23/jim-hansen-presses-the-climate-case-for-nuclear-energy/?partner=rss&emc=rss

Regional

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Extension of Washington State Sales Tax Exemption Helps Local Solar. Edmonds Beacon.

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Montana Generator Failure Will Send Avista Shopping for Electricity. Spokesman Review.

http://www.spokesman.com/stories/2013/jul/17/montana-generator-failure-will-send-avista-shoppin/

JP Morgan Reportedly Could Settle Manipulation Charges for \$500 Million. Houston Business J.

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Washington State May Get Share of Fines over Energy Market Manipulation. Kitsap Pen. Bus J.

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washington state to get share of fines levied over energy market manipulat

New Wind Farm Proposed East of Ellensburg. Yakima Herald-Republic.

http://www.yakimaherald.com/news/latestlocalnews/1326479-8/new-wind-farm-proposed-east-of-ellensburg

REC Proposes Separation of REC Silicon & REC Solar. Reuters.

http://www.individual.com/storyrss.php?story=179131718&hash=2bbad50fe905b19d032861f4751bbaff

Tesla Charging Station Opens Today in Centralia. KELA Radio.

http://energynewsfeed.blogspot.com/2013/07/tesla-charging-station-opens-today-in.html

Recent Reports on Energy and Climate Change

Monthly Energy Review, EIA, June 2013: http://www.eia.gov/totalenergy/data/monthly/

Short-term Energy Outlook, EIA, June 2013.: http://www.eia.gov/forecasts/steo/

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World Bank: 4 Degrees - Turn Down the Heat. Potsdam Institute for Climate Impact Research and Climate Analytics. June 2013. http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/06/14/000445729 20130614145941/ Rendered/PDF/784240WP0Full00D0C0NF0to0June19090L.pdf

Long-term outlook for nuclear power depends on lifetime of plant, EIA, Apr. 2013 http://www.eia.gov/todayinenergy/detail.cfm?id=10991

Environmental Protection Agency 2012 Climate Change Indicators Report. http://www.epa.gov/climatechange/science/indicators//

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Understanding Household Preferences for Alternative- Fuel Vehicle Technologies. Mineta Transportation Institute. http:// www.transweb.sjsu.edu/project/2809.html

NRDC report: Keystone pipeline would increase emissions. July 2013. http://www.nrdc.org/media/2013/130723.asp

Redrawing the Energy-Climate Map. International Energy Agency, June 2013. http://www.iea.org/media/freepublications/executivesummary/WEO2013_Climate_Excerpt_ES_WEB.pdf

River & Snow Pack Info

- Observed July stream flow at The Dalles: 102% of average.
- Observed July precipitation above The Dalles: 23% of average.
- Forecast runoff at The Dalles: July 98.5 MAF, 97% average flow
- Estimate of 2012-13 snow pack in July: NA
- Federal hydropower generation in June: 10,820 aMW, 2009-2013 average: 12.306 aMW.
- Reservoir content (Libby, Hungry Horse, Grand Coulee, Dworshak): June 97%, 5-year average: 91%.

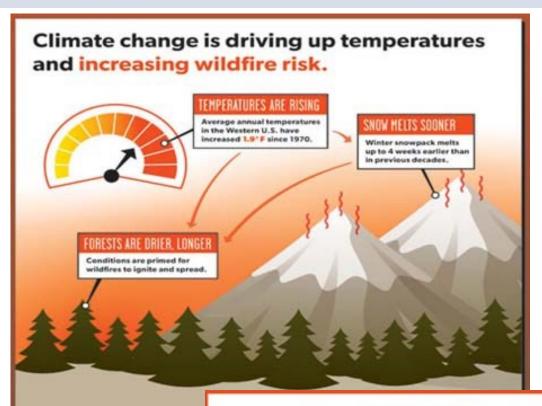
Power Exchanged

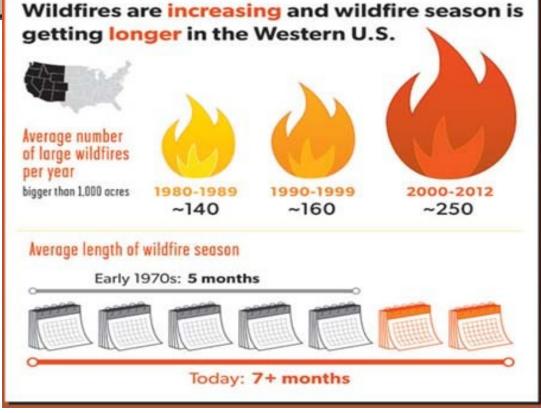
Average flow of power during the last 30 days

California (exported to) 5265 MW

Canada (export to) 224 MW

Net power exported: 5489 MW







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